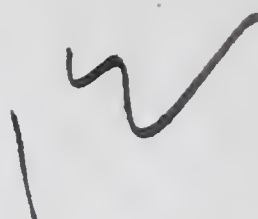


# LUCRETIUS OR PAUL.



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## MATERIALISM AND THEISM

TESTED BY

THE NATURE AND THE NEEDS OF MAN.

### AN ADDRESS

DELIVERED IN THE AMERICAN CHAPEL, BERLIN,

ON

THANKSGIVING DAY, NOV. 25<sup>th</sup>, 1875

BY

JOSEPH P. THOMPSON, D.D., LL.D.

BERLIN:

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# ADDRESS.

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THE favor with which you have received two Thanksgiving Addresses, seemed to bring me under obligation to accept your invitation for a third, in the hope that this might at least serve for the utterance of such sentiments of gratitude, fellowship, and devotion, as to-day are common to us all. With your hearts quickened by the anticipations of the coming year, you might naturally expect that the grateful memories of a hundred years would find vent to-day in an outburst of patriotic joy. But every thing in its season. That debt of gratitude is so great, so high, so deep, that I shall not presume to discount it in advance. Let it come with its whole weight to the heart of the whole nation, in the year and the day that Time has marked as one of the most bright and blessed in its calendar.<sup>1)</sup>

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<sup>1)</sup> In commemoration of the first century of the existence of the United States as a nation, I propose to give a course of lectures upon the following topics:

- I. The Grounds and Motives of the American Revolution.
- II. The Doctrines of the Declaration of Independence.
- III. The Adoption of the Constitution, Washington as Head of the Nation.
- IV. The Nation tested by the Vicissitudes of a Century.
- V. The Nation judged by its own Development and its Services to Mankind.
- VI. The Perils, Duties, and Hopes of the Opening Century.

These Lectures will be given in *Sachse's Kunstsalon*, Tauben-Strasse 34, on Monday and Friday evenings, commencing Monday, February 21st. They will be free, and all who take an interest in the philosophical study of American political history, and can give time to the course, will be cordially welcome. As a matter of convenience, however, those who propose to honor the lecturer by their attendance, are requested to send him their address, and they shall receive as a personal invitation, a programme in outline of the course.

As in the days of Chivalry, he who would be enrolled a knight spent the hours preceding his investiture in acts of devotion in the chapel, so if we would be found worthy to bear aloft the shield of liberty decked with the garlands of the century, we should give ourselves the rather now to studies and acts of devotion, which shall lead us to the source of all gratitude, the theme of all praise.

To Americans no sentiment is more normal or more patriotic than the recognition of God in their history. The words with which Washington opened his first address to the first Congress assembled under the Constitution, have but gained in emphasis with succeeding years. "No people," said he, "can be bound to acknowledge and adore the Invisible Hand which conducts the affairs of men more than the people of the United States. Every step by which they have advanced to the character of an independent nation seems to have been attended with some token of Providential agency;" and he who had won the independence of the nation, had shaped its constitution, and was now to order its administration, called upon Congress and the people to join with him, not in patriotic exultation, but in "pious gratitude."

Two years ago, I spoke of the reasons we have for National Thanksgiving, as Americans residing in a foreign country; last year, of the Heroic Age of America and our grateful pride in our fathers. The matter of these addresses was objective—critical and historical; but underneath them both was the religious assumption that from whatever point we view our country we are called to gratitude, and that this gratitude has at once its source and its end in the loving care of a living Father.

Let me now attempt to lead you up to this highest view of Thanksgiving, a view in which rest all reasons of Thanksgiving for ourselves and our country, and which is

equally present and imperative at home and abroad;—God here, God there, God then and now and always—the living Father with his loving care.

But is God here, there, everywhere? Is He anywhere? or is He nowhere? Around this question of a personal God, the battle rages most fiercely in the world of modern thought, and if we look to the clouds, as in the battle of the Huns, we there see the ghosts of ancient philosophy still fighting over the same field. A personal God, Creator, Governor, Redeemer, Father, or, matter, force, motion, evolution, and final extinction—this was the issue in the last generation in the sphere of metaphysics, renewed in our time in the sphere of physics—in one word, Theism or Materialism, the issue which must determine whether Thanksgiving is a reasonable virtue or a foolish superstition.

I need make no apology for handling such a question before an audience having more than an average of thinkers, and more than an average of training in the facts of science and the laws of thought, and especially before minds whose course of study brings them in contact with Materialism, either tacitly assumed or plausibly presented almost as a synonym of Science. But in propounding this theme, I do not propose to make a scientific disquisition, nor to enter the field of modern controversy; but taking the materialistic and theistic schemes of the universe as stated by the foremost advocates of each in ancient times, to test them severally in their adaptation to Man, as an explication both of himself and of that order of things with which he is inseparably connected. This test is strictly scientific. Science would not accept as a definition of a thing or a creature, a statement that failed to include or account for some of its most distinguishing properties; nor would science record as a law a formula that did not fairly cover all the characteristic and undeviating phenom-

ena of the subject-matter. Now, Man is a creature of a certain characteristic and undeviating constitution as to its essential elements and their normal manifestation; he is capable of observation, understanding, reason, imagination, emotion, affection, volition, moral judgment, as truly and universally as he is capable of growth, speech, nutrition, and locomotion. Also, the order of things with which he stands connected—call it Nature, the Cosmos, the Universe—addresses itself not only to his bodily senses, but to each and all of these capacities or faculties that go to make up the man. The scenes and sounds that impress his organs of sight and hearing address themselves also to his imagination and taste, excite within him joy, fear, hope, memory, love, move him to action, or lull him to repose. What an unscientific absurdity, then, is a scheme of the universe which would define its origin, its nature, and its workings simply through its impression upon the physical senses of man, or as known to his observation, and should leave quite out of account the rich and manifold aptitudes of the universe to the nature of man as a being of thought and imagination, of emotion and desire, of affection and will! How shallow the pretense to science, in a definition of the universe, that should ignore all its relations to the nobler and better part of man.

It is to this test of the Universe as related to Man and Man as related to the Universe, that I propose to submit the schemes of Materialism and Theism. In the statement of these schemes, I shall take for each its foremost representative, Lucretius and Paul; each in his kind the highest type of man. I take these because, while they can be contemplated apart from the prejudices and passions of contemporary disputants, they are also fairly balanced, and are unsurpassed by any of the whole race of philosophers, be they scientists or sciolists, of to-day. Lucretius and

Paul were alike in the rare combination in equal measure of the logical and the imaginative faculties; strong-armed for blows of argument, strong-winged for flights of poetry. They were alike in the love of truth, in the desire to free mankind from superstition and error, and in courage to avow their opinions and obey their convictions. They were alike in seeking the foundation of things, and from this to grasp the infinite, and with thought and fancy to girdle the universe. Nearly contemporary — Lucretius having died barely fifty years before Paul was born, — they both grew up amid the culture of the Roman empire in its most brilliant and classic age. That Lucretius enjoyed this culture, his poem furnishes intrinsic evidence in its mastery at once of Greek philosophy and of Latin verse, which last indeed he perfected, as did Shakspeare the English and Goethe the German.

Paul, too, had the best culture of his time; first, at Antioch, then a foremost seat of learning, next at Jerusalem, in the famous school of Gamaliel, where were taught not only the history and laws of Judaism, but philosophy, science, literature from every quarter, especially from the East.”<sup>1)</sup> That Paul was a man of intellectual rank is evident, not only from the thought and style of his writings, but from his being entrusted at an early age with high responsibilities by the leaders of his nation; by his familiarity with Greek philosophy and Greek authors, as shown for instance at Athens and Lystra; and by his “disputing in the school of one Tyrannus<sup>2)</sup>”; and that he was of a scholarly habit appears from his message to Timothy, “The

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<sup>1)</sup> In the higher schools of Palestine were taught Law, Ethics, History, Grammar, Languages (Coptic, Aramaic, Persian, Median, Latin, Greek), Mathematics, Astronomy, Botany, Zoology, etc. See a full account of these schools in the “Literary Remains of Emanuel Deutsch,” pp. 21—25, and 140.

<sup>2)</sup> Acts, XIX., 9.

cloak that I left at Troas bring with thee, and the books—but especially the parchments,”<sup>1)</sup> which he had written or needed for writing. He could ill afford to lose an outer garment, but like a German professor, he cared more for books and especially his own writings, than for clothes!

Of Lucretius it must be said, that he not only wrought out the doctrine of Materialism with a completeness of statement and profuseness of illustration not attained by any of his predecessors, but also made his system of the universe so comprehensive that modern materialists have added absolutely nothing to his conception, but have simply confirmed at certain points, by observation and experiment, what he had reasoned out from his speculative postulates.<sup>2)</sup>

Did Galileo demonstrate that in a vacuum all bodies fall through equal spaces in equal times? Lucretius had already said that “whenever bodies fall through water and thin air, they must quicken their descents in proportion to their weights, because the body of water and subtle nature of air can not retard every thing in equal degree, but more readily give way, overpowered by the heavier; on the other hand, empty void can not offer resistance to any thing in any direction at any time, but must, as its nature craves, continually give way; and for this reason all things must

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<sup>1)</sup> 2. Tim. IV., 33.

<sup>2)</sup> Too little is known of the life of Lucretius to enable us to judge how far he subjected his philosophical theories to experimental tests. His poem exhibits a perfect acquaintance with the discoveries and opinions of the Greek philosophers, and a minute observance of Nature as to her more patent phenomena. But of experimental observation—what the Friar of Messina styled “Observation

Which with *experimental seal* doth warrant

The tenor of my book,”—(Much Ado about Nothing. IV, 1.)

Lucretius seems to have had little or none. The lack of facility for this makes his system the more wonderful, as a structure of vast and logical consistency, a metaphysical creation to so many parts of which physical observation has now put its “experimental seal.” Thus, as to the properties of vacuum Lucretius argues not from experiments in an artificial void, but abstractly, from the nature of void—“*sua quod natura petit.*”—L. II, 237.

be moved and borne along with equal velocity though of unequal weights through the unresisting void.”<sup>1)</sup> Has modern astronomy, by the most rigorous test of calculation and of instruments, settled upon the nebular hypothesis as the most plausible explanation of the formation of the masses of the planets, their rotation, their rings and satellites, and also of the asteroids and comets? Lucretius had anticipated this in his conception of minute, innumerable atoms in perpetual motion through the realms of space.<sup>2)</sup> Do modern physicists boast the discovery that in nature there is no annihilation, but a perpetual conservation of energy, a correlation of force, and transmutation of form? Lucretius had already said, “Nature does not annihilate things;” — “a thing never returns to nothing, but all things after disruption go back into the first bodies of matter. None of the things, therefore, which seem to be lost is utterly lost, since nature replenishes one thing out of another, and does not suffer any thing to be begotten, before she has been recruited by the death of some other.”<sup>3)</sup> And again he speaks of latent forces in things, and of “an imperishable

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<sup>1)</sup> “Omnia qua propter debent per inane quietum  
Aeque ponderibus non aequis concita ferri.”

(*De Rerum Natura*, L. II, 230—240.)

For the convenience of readers who may not be able to consult Lucretius in the original, in quoting his poem, I have followed throughout (as upon the whole the best), the neat, terse, and accurate prose translation of Mr. Munro, Fellow of Trinity College, Cambridge, third edition. There is also a good French prose translation by Ernest Lavigne, avec une Étude sur la Physique de Lucrèce par Frédéric André. Among the many editions of the original, that of Lachman is to be commended.

<sup>2)</sup> L. I, 988—1052. “All things are ever going on in ceaseless motion . . . . Hence many forms must arise.” Helmholtz suggests a vortex motion in an incompressible frictionless liquid.

<sup>3)</sup> “Huc accedit uti quicque in sua corpora rursum,  
Dissoluat natura neque ad nilum interemat res

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Quando alid ex alio reficit natura, nec ullam

Rem gigni patitur, nisi morte adiuta aliena.”—(L. I., 215-265.)

residuum into which all things can be dissolved at their last hour, that there may be a supply of matter for the re-production of things." <sup>1)</sup> Has Darwin coined the phrase "struggle for existence," "natural selection," "survival of the fittest," to account for species and varieties? Again Lucretius is before-hand in saying, "not by design did the first-beginnings of things station themselves each in its right place, guided by keen intelligence, nor did they bargain sooth to say what motions each should assume, but because many in number, and shifting about in many ways throughout the universe, they are driven and tormented by blows during infinite time past, after trying motions and unions of every kind, at length they fall into arrangements such as those out of which this our sum of things has been formed".<sup>2)</sup>

Above all, the fundamental conception of Lucretius that the atom is the unit of structure in all bodies is in part confirmed by Dalton's discovery of the law of multiple proportions,<sup>3)</sup> and by other recent discoveries in chemistry.

<sup>1)</sup> L. I., 543-548.

<sup>2)</sup> L. I., 1021-27. "*Omne genus motus et coetus experiundo.*"

<sup>3)</sup> This law, as *bearing upon the atomic theory*, may be thus stated: Each atom is a definite mass of matter, having a definite weight, and all atoms of the same substance have the same size and weight. Hence "when an atom of iron unites with an atom of sulphur to form a molecule of sulphide of iron, the union takes place in the proportion by weight of 56 to 32. When two atoms of hydrogen combine with one atom of oxygen to form a molecule of water, since each atom of oxygen weighs sixteen times as much as an atom of hydrogen, the two substances must combine in the proportion of 2:16 or 1:8. Further, the proportions of the different elementary substances which unite to form the various known compounds are so related that it is possible to find for each element a number, such, that, in regard to the several numbers, it may be said that the elements always combine in the proportion by weight of these numbers or of some simple multiples of these numbers." (See, *The New Chemistry*, by Prof. J. P. Cooke, Chap. V.) Many chemists, though not all, accept the atomic theory as the best solution of this law of multiple proportions. To our estimate of Lucretius, the variation of meaning in the terms *molecule* and *atom* as used in chemistry and in physics, is of no practical importance.

nd physics; and should we accept also his doctrine concerning body and void, I see not how there would remain any thing in the material universe beyond the original ken of this poet-philosopher, nor any thing for science to do but to verify by observation his metaphysical outline of Nature and fill up its details. True, if we take what he calls the *inane* for absolute vacuum, some scientists would be at issue with Lucretius with their doctrine of a "luminiferous ether" filling all space and trembling with waves of light — what Roscoe calls an "elastic medium,"<sup>1)</sup> and Tyndall says "though more attenuated than any known gas, resembles jelly rather than air."<sup>2)</sup> But Lucretius seems to mean by the *inane*, space in which there is no appreciable matter; as he expressly says "if it shall be intangible and unable to hinder any thing from passing through it on any side, this you are to know will be that which we call empty void."<sup>3)</sup>

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<sup>1)</sup> "Light is due to the undulations of the elastic medium pervading all space to which physicists have given the name of luminiferous ether." Roscoe *Spectrum Analysis*, p. 9.

<sup>2)</sup> "*Fragments of Science*," Essay I. The Constitution of Nature. Reprinted from *Fortnightly Review*, vol. III., p. 129.

Though this theory of a luminiferous ether seems to account satisfactorily for all the phenomena of light, there remain eminent physicists who reject it or hold themselves in suspense concerning it. The path of Encke's comet as observed through the great equatorial at Washington, seems to confirm von Asten's view that all the movements of this body could be accounted for by the disturbing attractions of the planets, without supposing a retarding influence from an ethereal medium. The existence of such a medium is still an open question.

Professor Challis, of Cambridge, regards the universe as made up of atoms and ether. "The atoms are spheres, unalterable in magnitude, and endowed with inertia, but with no other property whatever. The ether is a perfect fluid, endowed with inertia, and exerting a pressure proportional to its density. It is fully continuous (and therefore does not consist of atoms), and it fills up all the interstices of the atoms." Essay on the *Mathematical Principles of Physics*. *The Nature*, vol. VIII., p. 279. This ether of Challis is a modification of the void of Lucretius. See again Helmholtz's incompressible frictionless fluid.

<sup>3)</sup> "Sin intactile erit, nulla de parte quod ullam

Rem prohibere queat per se transire meantem,

Scilicet, hoc id erit, vacuum quod inane vocamus." (L. I., 437-40.)

This seems neither more nor less than what philosophers have surmised, but not demonstrated, under the name of ether.

Tennyson has finely phrased Lucretius' doctrine of the void as the abode of the gods:

“The lucid interspace of world and world,  
Where never creeps a cloud or moves a wind,  
Nor ever falls the least white star of snow,  
Nor ever lowest roll of thunder moans,  
Nor sound of human sorrow mounts, to mar  
Their sacred everlasting calm.”

We must pause here a moment to observe that, however in fact the universe was or is made, it was not first constructed by the materialists of our day; and if these gentlemen were better versed in the history of that Philosophy which some of them affect to despise, they might grow wiser if not more modest in presence of the great master of thought, whose shadows they are. For here observe in Lucretius, that it was *thinking*, and not seeing, that first penetrated the arcana of the universe. That Lucretius was familiar with the observations as well as the speculation of foregoing philosophers is evident;<sup>1</sup>) but his own theory of the universe now confirmed at so many points by experiment, is a marvel of the deductive method. To the examples already given of his anticipation of modern discoveries I add two that alone should make him immortal among thinkers. Lucretius held that atoms “are of solid singleness,” but that bodies as we see them are made up of atoms and void, and are solid or rare according to the proportions of body and void. This he illustrates by comparing a ball of wool with a lump of lead. Take now the

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<sup>1</sup> See Note, p. 8.

beautiful experiment of packing the same globe with three kinds of vapor. A glass globe, with a capacity of one cubic foot, and containing one cubic inch of water, is exhausted of air, and then heated to the boiling point; the water all evaporates, and the globe is filled with steam. If more water be added, the same temperature being kept up, not a particle of this will evaporate; but if alcohol is introduced, "this immediately evaporates, and just as much alcohol-vapor will form as if no steam were present. The globe is filled with aqueous-vapor and alcohol-vapor at one and the same time, each acting, in all respects, as if it occupied the space alone. If now we add a quantity of ether, we shall have the same phenomena repeated; the ether will expand, and fill the space with its vapor, and the globe will hold just as much ether-vapor as if neither of the other two were present. There is not here a chemical union between the several vapors, and we can not in any sense regard the space as filled with a compound of the three. We can give no satisfactory explanation of these phenomena except on the assumption that each substance is an aggregate of particles, or units, which by the action of heat, become widely separated from each other, leaving very large intermolecular spaces, within which the particles of an almost indefinite number of other vapors may find place."<sup>1)</sup> But Lucretius was just as sure that such must be the structure of bodies as if he had witnessed a thousand such experiments. One other point in which Lucretius anticipated the inductive and experimental science of modern times has elicited the special admiration of Sir William Thomson, himself a great authority upon the structure and properties of atoms. Lucretius, in his first book, vigorously contests the notion that the universe

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<sup>1)</sup> Cooke's New Chemistry: Lecture I.

is compounded of four elements — earth, water, air, and fire — and especially the doctrine that fire is the source of all things; he refers all phenomena to the properties of atoms and their *kinetic* energy. As, for instance, “there are certain bodies whose clashing motions, order, position and shapes, produce fires, and which, by a *change of order*, change the nature of the things.”<sup>1)</sup> Hence, according to Sir William, the recent methods of explaining heat, light, elasticity, diffusion, electricity, and magnetism, in gases, liquids, and solids, are “carrying out the grand conception of Lucretius, who admits no subtle ethers, no variety of elements with fiery, or watery, or light, or heavy principles nor supposes light to be one thing, fire another, electricity a fluid, magnetism a vital principle, but treats all phenomena as mere properties or accidents of simple matter.”<sup>2)</sup>

Now, the point I make, and would insist upon, is, that these were not lucky guesses or coincidences of Lucretius, but results of the *deductive* method to which scientific materialism is compelled to do homage by its own discoveries. But remarkable as are these correspondences of experimental physics and chemistry with the atomic theory, the atom itself is simply assumed. It never has been, and never can be, brought within the range of the senses. The atomic theory is evidenced by experiments as to atomic weights, volume, heat, and combining capacity, and as to isomerism, and chemical molecules and homogeneity; but the theory is still stoutly contested by some, and the very existence of the atom is disputed by others.<sup>3)</sup> Yet we are called upon to accept the materialistic doctrine of the

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<sup>1)</sup> „*Mutatoque ordine mutant naturam*“, L. I., 685 seq.

<sup>2)</sup> Address of Sir W. Thomson LL. D. F. R. S. before the British Association 1871; also *North British Review* on Lucretius, March 1868.

<sup>3)</sup> See Essay of S. D. Tillman, *Nature*, Vol. VI., p. 171. E. J. Mills in *Philosophical Magazine*, XLIII., p. 112, and Prof. B. C. Brodie, *Journal of the Chemical Society*, London, XXI., 367.

universe, and to receive nothing as *knowledge* which does not come to us through the senses, while forsooth the foundation of this sensible universe lies 'utterly beyond the senses, is not at all a physical fact that any one has seen or handled, but a theoretical deduction, an assumption of the mind to explain facts that are seen. Let the atomic theory have all due acceptance as an ingenious and subtle theory, but let it not be thrust upon us as a dogma by a hierarchy of physicists — which, in the name of human freedom, is as much to be resisted and detested as an ecclesiastical hierarchy. Most heartily and gratefully do I welcome all facts ascertained by physical science; nor do I see, upon theistic grounds, any solid objection to the nebular hypothesis, the atomic theory, the doctrine of the correlation of forces, or of natural selection. But should all these be established upon the physical basis of experimental observation, I pray men of science to be honest enough to own that it was not physics but *Metaphysics* that first suggested and sought to demonstrate them, each and all. Materialism can not repudiate its own parentage; can not steal the name of Lucretius and scorn his method. Materialism was begotten not of Nature, but of Mind through metaphysics.

I accept the method of induction as the basis of scientific theorizing, but not to the exclusion of logic and imagination, in one word, of metaphysical speculation. Three hundred years have passed since Bacon gave us the inductive method, and now that method is only beginning to give us results as to the physical universe, which, nineteen hundred years ago, Lucretius, poet and metaphysician, evolved from his own brain. In the sphere of physics, speculation may require to be confirmed by observation, and speculation can not stand when positively contradicted by observation; but in the conception of the universe there is

a sphere for metaphysics as well as physics, and in which metaphysics may be strong enough and clear enough to assert that the seeming facts of physics are delusions and its deductions fallacies. That which man *sees* is not all that *is*, nor all that man knows or dare affirm.

Goethe, who might have been first among physicists had he not been first among poets, said, "I want to know what it is that impels every several portion of the universe to seek out some other portion either to rule or to obey it, and qualifies some for the one part and some for the other, according to a law innate in them all and operating like a voluntary choice. But this is precisely the point upon which the most perfect and universal silence prevails."<sup>1)</sup> And he puts into the mouth of Faust, that which we may take for at once the boast and the confession of his own mind.

"I feel indeed that I have made the treasure  
Of human thought and knowledge mine in vain,  
And if I now sit down in restful leisure,  
No fount of newer strength is in my brain;  
I am no hair's breadth more in height,  
Nor nearer to the infinite."<sup>2)</sup>

*The knowledge of the Seen does not preclude the existence of the Unseen.* It is the failure to admit this simple aphorism, that has been the folly of materialists from Lucretius

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<sup>1)</sup> Conversation with Falk. Hegel quotes a like sentiment from another poet:

"In's Innere der Natur  
Dringt kein erschaffner Geist,  
Zu glücklich, wenn er nur  
Die äussere Schaale weis't"

To this Hegel adds the comment, "Rather should it be said, if the essence of Nature is determined by any one as *inner*, in that very determination he knows only the *outer* shell." *Encyklopädie der philosophischen Wissenschaften*. §. 140. *Die Lehre vom Wesen*.

<sup>2)</sup> Bayard Taylor's Translation.

to Haeckel. Lucretius says, "From the senses first has proceeded the knowledge of the true, and the senses can not be refuted;"<sup>1)</sup> and he asks, "What surer test can we have than the senses whereby to note truth and falsehood—to what else shall we appeal?"<sup>2)</sup> I answer, to that Something within us that sits in judgment upon the senses and determines whether their testimony is true or false; which, for instance, when the eye sees a ghost in the grave-yard, or a lake in the desert, decides that this is but an illusion of the retina, or a disease of the optic nerve.<sup>3)</sup> When you look upon the clever tricks of the juggler or the Medium, you know that you are being cheated, and do not see what you see, nor hear what you hear. You judge your senses

<sup>1)</sup> "Invenies primis ab sensibus esse creatam

Notitiam veri, neque sensus posse refelli." (L. IV., 475-6.)

<sup>2)</sup> "Quo referemus enim? quid nobis certius ipsis

Sensibus esse potest, qui vera ac falsa notemus?" (L. I., 699-700.)

<sup>3)</sup> Thus Macbeth, while intent upon the murder of Duncan, first sees a dagger, then disputes his sight by his touch, then, when his reason recovers from the bewilderment of his imagination, he passes judgment both upon his senses and his fancy, and is himself again. By italicising a few words of his soliloquy the whole process becomes plain:

"Is this a dagger, which I see before me,  
The handle toward my hand? Come, let me clutch thee;—  
I *have* thee not, and yet I *see* thee still.  
Art thou not, fatal vision, sensible  
To feeling, as to sight? or art thou but  
*A dagger of the mind: a false creation,*  
Proceeding from the heat-oppressed brain?  
I *see* thee yet, in form as palpable  
As this which now I draw.

\*                      \*                      \*

Mine *eyes* are made the fools o'the *other* senses,  
Or else *worth all the rest*: I *SEE* thee *still*:  
And on thy blade, and dudgeon, gouts of blood,  
Which was not so before; — *There's no such thing*:  
It is the *bloody business*, which informs  
Thus to mine eyes."

Shakspeare made no mistake in making sense thus mislead, and then refuting sense by reason.

at the time and enjoy the conscious luxury of being humbugged, or if misled for the moment by appearances, when you think it over, you berate your senses for having fooled you. Our senses are not the final and sufficient judge upon all fact and truth. This crucial test of Lucretius is unscientific in three particulars.

I. It would shut out the great body of mankind from that knowledge which is necessary to just convictions and beliefs, and to right action. It is not possible for the body of mankind to make with their own senses those observations of Nature upon which physicists base the doctrine of the world and of life. Hence, in a matter of such high concern as the order of things with which they are related mankind must put that *faith* in physicists which for themselves they contest and renounce. When the scientific Materialist speaks *ex Cathedrâ* there is nothing for the laity but implicit submission to his authority. If they venture an opinion, he tells them they have "no knowledge," they may feel or believe — but he *knows*.<sup>1)</sup>

II. It is unscientific to assume that all things are discernible by the senses. No mortal has yet seen or handled that in the senses which discerns. No atomist has seen or felt an atom. No instrument has yet pierced or measured what lies in spaces that are ever and forever next beyond. And once more;

III. It is unscientific to attempt to account for Man and the Universe within the narrow range of man's external senses, leaving out of view that immeasurable reach and range of faculty by which he knows himself to be other than a walking, seeing, feeling, eating brute. It was this unscientific limitation of knowledge to the vehicle of the senses, that led Lucretius into the fallacy that "there is

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<sup>1)</sup> See Tyndall's reply to Martineau in *Fortnightly Review*, Nov. 1875.

nothing which you can affirm to be at once separate from all bodies and quite distinct from void, which would, so to say, account for the discovery of a third nature"<sup>1)</sup> — that nothing exists or can exist in the universe beside void and bodies. For the constitution of a material universe, it is true that matter and space or body and void are alike essential, and so far as we know are all; but the question is, whether the material universe is all; and that question cannot be settled by purely physical observation upon the nature of bodies or the contents of space. That incessant striving of man's nature after something above and beyond, a striving that grows the more impatient with his mastery over nature and his accumulating stores of knowledge;— that mighty un-rest in which a Prometheus, a Lucifer, a Faust are but projected types of our inner selves—the un-rest that urges man on to think the un-thinkable and to know the un-knowable — that makes poetry, philosophy, music so much higher and worthier representations of humanity than the recorded observation of phenomena — what is this but an attestation of that "third thing" that Lucretius could not feel nor see, but that Paul had attained to when he spoke of "body, soul and spirit," and found not only a third element in the constitution of man and of the universe, but also a "third heaven" in which spirit might abide?

But it is not my purpose here to discuss the world-scheme of Lucretius or of Paul from a purely physical point of view. As I have said, I would bring each system before you in the words and with the weight of these great masters, and then leave you to test the Materialism of the one and the Theism of the other by the needs and aptitudes

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<sup>1)</sup> "Praeterea nil est quod possis dicere ab omni Corpore seiunctum secretumque esse ab inani, Quod quasi tertia sit numero natura reperta." (L. I., 430-33.)

of your own nature. Lucretius lays it down as his first principle "that nothing is ever gotten out of nothing by divine power."<sup>1</sup>) Hence matter, as to its essence, or what he terms the "first-beginnings," is eternal and imperishable. Then, as to the forms of things, these are due not to design nor intelligence, but to the conflicts and combinations of atoms through motion and eternal laws, so that every thing exists as to its elements, and all things are done as to the manner of them, "without the hand of the Gods."<sup>2</sup>) Taking his illustration from the minute bodies seen floating in a sun-beam in a dark chamber, he says, "For the first-beginnings of things move first of themselves; next those bodies which form a small aggregate and come nearest so to say to the powers of the first-beginnings, are impelled and set in movement by the unseen strokes of those first bodies, and they next in turn stir up bodies which are a little larger. Thus motion mounts up from the first-beginnings, and step by step issues forth to our senses, so that those bodies also move which we can discern in the sun-light, though it is not clearly seen by what blows they so act."<sup>3</sup>)

We must now keep in mind how strongly Lucretius insists that "from the senses first proceeded the knowledge of the true, and the senses can not be refuted." Yet he here assumes several successive stages of motion by the impact of bodies before either body or motion becomes cognizable by the senses. That is, for the foundation of his atomic theory he reasons back from the seen to the unseen: — the reasoning may be valid, but the existence of the atom is not attested by the senses. Yet now-a-days, to reason from the seen to the unseen, from phenomena to

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<sup>1</sup>) Nullam rem e nilo gigni divinitus unquam. (L. I., 150.)

<sup>2</sup>) L. I., 157 and 1020 seq.

<sup>3</sup>) Prima moventur enim per se primordia rerum etc. (B. II., 133 seq.)

cause, from adaptation to intelligence, is forsooth made an offense in the metaphysician, though Lucretius arrived at his atom by deduction, and then assumed the atom as the basis of his materialistic universe! Next, having inferred the motion of invisible atoms from the perceived motion of visible particles, he makes the bold assumption of self-originated motion for the first-beginnings. This is sheer assertion, since his senses had shown him only motion by impact, and neither the senses nor logic could derive from this motion without "blows" to start it. Newton has said that "the properties which we attribute to the least parts of matter must be consistent with those of which experiments on sensible bodies have made us cognizant." Now Lucretius admits that all bodies above the "first-beginnings" have the property of *inertia*, and require to be "set in movement," "impelled," "stirred up" by "strokes and blows" from without. But when he reaches his "first-beginnings" he drops inertia and impact, and substitutes self-movement, by a most gratuitous assumption. This is the habit of his followers. On the materialistic principle neither observation nor logic can begin the first-beginning, nor start the first motion. At this point Materialism begs the whole question. It gives no proof that the universe is automatic.

But to proceed. From atoms and motion acting under certain conditions, Lucretius produces organic life, so that "what ever things we perceive to have sense are all composed of senseless first-beginnings;"<sup>1)</sup> and "nature is seen to do all things spontaneously of herself, without the meddling of the gods."<sup>2)</sup> Nor does he stop with the material origin of organic life, but teaches that "the nature of the mind and soul is bodily"—the directing and governing principle of life being physically "no less part of the man than hand and foot

<sup>1)</sup> L. II., 865.

<sup>2)</sup> L. II., 1090.

and eyes.”<sup>1)</sup> He even goes so far as to describe the bodies, seeds, or atoms out of which the mind is formed; viz., that “these are exceedingly small, smooth and round, and inwoven through the veins and flesh and sinews of the body; the proofs of which are the great velocity with which the mind moves, and the fact that at death, the “so-called departure of the soul takes away none of the weight of the body any more than a delicious aroma dispersed in the air reduces the size or weight of the body that emits it.”<sup>2)</sup> Hence he argues that in death, the “cause of destruction is one and inseparable for both body and soul,” that the soul driven forth out of the body into the open air, “stripped of its covering, not only can not continue through eternity, but is unable to hold together the smallest fraction of time.” “The nature of the mind is mortal, therefore when the body has died, the soul itself has perished also” as to its individuality; the chain of self-consciousness is snapped asunder; and the elements of both body and soul are resolved into other material forms. “Immortal death takes away from both their mortal life.”<sup>3)</sup>

There is a certain grandeur and beauty in these conceptions, and I confess that when first I had mastered Lucretius, I felt a touch of awe at the majesty of a soul thus blindly bowing to its fate, and Samson-like dragging down men and gods together in its own destruction. But as I looked upon such a universe, in which destruction is the ever-recurring law, and death alone is immortal, from this background of darkness and despair, I saw rise before me that marvellous vision of Wordsworth;

“In my mind’s eye a temple, like a cloud  
 Slowly surmounting some invidious hill  
 Rose out of darkness: the bright work stood still;

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<sup>1)</sup> L. III., 94-162.

<sup>2)</sup> L. III., 177-230.

<sup>3)</sup> L. III., 632-867.

And might of its own beauty have been proud,  
 But it was fashioned, and to God was vowed  
 By virtues that diffused, in every part,  
 Spirit divine through forms of human art;  
 Faith had her arch—her arch when winds blow loud,  
 Into the consciousness of safety thrilled;  
 And Love her towers of dread foundation laid  
 Under the grave of things; Hope had her spire  
 Star-high, and pointing still to something higher;  
 Trembling I gazed, but heard a voice,—it said,  
 Hell-gates are powerless Phantoms when *we* build.”<sup>1)</sup>

This vision recalls us to the scheme of the universe as set forth by Paul, whom we mate with Lucretius as the greatest master of theistic thought. His foundation principle is, “every house is builded by some man, but He that built all things is God.”<sup>2)</sup> “Through faith we understand that the worlds were framed by the Word of God; so that things which are seen were not made of things which do appear.”<sup>3)</sup> “For the invisible things of Him from the creation of the world are clearly seen, being understood by the things that are made, even His eternal power and godhead.”<sup>4)</sup> \*) Like Lucretius seeking to deliver men from superstition, but by satisfying that feeling of devotion that is imperishable in man, Paul said to the men of Lystra, “We preach unto you, that ye should turn from these vanities unto the living God, which made heaven and earth and the sea, and all things that are therein. He left not himself without witness in that He did good; He gave us rain from heaven, and fruitful seasons, filling our hearts with food and gladness.”<sup>5)</sup> At Athens, this system of Paul

<sup>1)</sup> Miscellaneous Sonnets, XLIV.

<sup>2)</sup> Heb. III., 4.

<sup>3)</sup> Hebr. II., 3.

<sup>4)</sup> Rom. I., 20.

<sup>5)</sup> Acts XIV., 15-17.

\*) See note at the end of the pamphlet.

came into direct collision with the Epicurean system of Lucretius. The materialists of Athens, with the air of contempt that their followers affect to-day, said, "What will this babbler say?" What does he know of philosophy, of science, of the universe? And the "babbler," standing in the place where Socrates was judged, with an eloquence that Demosthenes might have envied, addressed himself to their consciousness, to their understanding, to their moral sense, to the dignity of their nature, appealed to their reason, to their own poets, and to that irrepressible, insatiable yearning of their souls, which, overflowing all boundaries of superstition, and all temples of human art, went forth into the unmeasured void of Lucretius to seek the Unknown. "Ye men of Athens, I perceive that, above other peoples, ye are in every way given to religious reverence. For, as I passed through the city, and looked over the objects of your devotion, I found an altar with this inscription—To an Unknown God. Him, therefore, whom ye worship though ye know him not—Him do I set forth to you. God that made the world and all things therein, seeing that he is Lord of heaven and earth, dwelleth not in temples made with hands, neither is worshipped with men's hands as though He needed any thing, seeing He giveth to all life and breath and all things: and every nation of men—all alike of one blood—He hath caused to dwell on all the face of the earth, and hath determined the times before appointed and the bounds of their habitation; that they should seek the Lord, if haply they might feel after Him and find Him, though He be not far from every one of us: for in Him we live and move and have our being; as certain also of your own poets have said, For we are also His offspring." <sup>1)</sup>

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<sup>1)</sup> Acts XVII., 22 seq. It is to be hoped that the new English translation will restore this incomparable speech to its original beauty and force of diction.

As no materialistic philosopher of modern times has improved upon Lucretius in his conception of the universe, so no theistic thinker has got beyond that "babble" of Paul at Athens; and the question of to-day is, to which system does your nature answer and which teacher will your mind follow? It is you then who are to make the argument, rather, it makes itself, as we exhibit these two systems of the universe in the mirror of your own nature.

The first test springs directly out of the day on which and the purpose for which, we have come together. In the words of the Proclamation by the President of the United States, "amid the rich and free enjoyment of all our advantages, we should not forget the source from whence they are derived, and the extent of our obligations to the Father of all our mercies." And therefore "in accordance with a practice at once wise and beautiful," and in sympathy with the millions of our countrymen, "we devote this occasion to the humble expression of our thanks to Almighty God for the ceaseless and distinguished benefits bestowed upon us as a nation, and for his mercies and protection during the closing year." But if the theory of Lucretius is true, it should shame you to be here, and should shame me still more to be speaking to you of such a theme. What then should we thank? the myriad atoms heaving, tossing, driving, mixing, without consciousness, without intelligence, without feeling as to whether they shall shape a mountain or a mole, a beast or a man? If the doctrine of Lucretius is true, this is no place and these are no acts for men of science or men of sense. We are no wiser, no better than the Africans at their fetich worship, though under another name. Thanksgiving is a superstition, and we of all people

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Paul was an orator, a scholar, and a gentleman, and did not open his speech by insulting his audience, and stirring their prejudices, as represented in the English version.

in the world should be free of superstition. And we are free of it. Our practical reasoning nature does not incline toward it. There is no background of superstition in our history, there are no legends, monuments, mythologies, ruins, for superstition to build upon. We have broken the yoke alike of political tradition and of ecclesiastical tyranny. We are free men of free thought. If we brought with us superstitions of our own, we have worked ourselves free of them by travel and study in foreign lands. Even that one amiable superstition that clings to the unsophisticated American—that his is just about the biggest nation on the planet—he gets ashamed of, when he sees what bigger fools other people can make of themselves by boasting their nation the centre of all wisdom, the source and end of all culture!

But if we are sometimes fools we are not hypocrites. No law, no form, no tradition, no regard for opinion compels our attendance here to-day. We are here because moved by one of the profoundest, noblest, holiest, sentiments of our nature. In giving thanks to God, we do homage to that which is best and purest within ourselves. Man is as truly made for the exercise of gratitude as for the use of his physical senses. These are no more part of him than that. Nay, to be void of gratitude is worse than to be blind, deaf or dumb. Mankind have stamped ingratitude as more execrable than any sin or crime. Aesop has branded it in the fable of the viper stinging him who had warmed it into life. In that tragedy that combines in itself more horrors than all dramas ever written for the stage—the *Orestes* of Euripides—though the matricide can plead in mitigation that his mother was an adulteress and had murdered his father, and that the god Apollo had commanded him to slay her, yet the constant refrain of the Chorus as they bewail his crime and of the people as they demand his punishment is, that he did not hold back the dagger when his mother

bared to him the breasts that had suckled him:—and in the torments of his madness, Orestes sees his father beseeching him not to slay her who bore him.<sup>1)</sup>

The lowest deeps of his *Inferno*, that he was powerless with terror to describe, Dante reserved for the infamy of ingratitude and treason. Shakspeare, holding before us the rent and bloody mantle of Caesar, gives the final thrill of horror when he points to the wound of Brutus' dagger;

“This was the most unkindest cut of all:  
For when the noble Caesar saw him stab,  
Ingratitude, more strong than traitor's arms,  
Quite vanquished him; then burst his mighty heart!”

And the greatest master of English style, South, has said, “In the charge of ingratitude *omnia dixeris*: it is one great blot upon all mortality: it is all in a word: it says Amen to the black roll of sins: it gives completion and confirmation to them all.”<sup>2)</sup> How strong in man must be that emotional texture, the rending of which has filled the literature of all ages with sounds of terror and of wo. And now shall the materialist tell me that I, who when I receive any thing of good feel within me this swelling bursting heart of gratitude and praise, can find in the universe nothing worthy of myself on which to bestow it? nothing but atoms where I can see, nothing but void where I can not see! Shall I consent to be stripped of this prerogative of love, of this ecstasy of grateful praise, and be told that in the universe, amid its myriads of atoms, there

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<sup>1)</sup> Shakspeare has the same thought in *Lear*, Act I., scene 4:

“Ingratitude! thou marble-hearted fiend,  
More hideous, when thou show'st thee in a child,  
Than the sea-monster!  
How sharper than a serpent's tooth it is  
To have a thankless child!”

<sup>2)</sup> Vol. I. sermon 10.

is not one atom of intelligence, of love, or good, that thinks or cares for me? What do I want from atoms like myself grinding on under the everlasting laws till our brief turn shall come to be crushed and die? My heart is greater than them all. My heart refuses to be satisfied with a universe that makes its finest, noblest sentiments of no account, because it has nothing for these to rest upon — aye that would put the heart itself into a crucible, and reduce its divinest feelings to phantasies—that would make its love a folly and its gratitude a superstition! Lucretius may puzzle my brain, but when I cease to be an automaton and feel myself a man, my heart rebounds at the voice of Paul, and I turn from these materialistic vanities “to the living God, which made heaven and earth and the sea and all things that are therein, and fills our hearts with food and gladness.” My whole nature rests in, and is satisfied with, the thought that “in Him we live and move and have our being; for we are His offspring.”

Shall I be told that an appeal from human feelings can have no weight against the testimony of physical facts? I answer first, that I do not array feelings against facts, but human nature against the narrow and exclusive inference that materialists would make from physical nature. And next, that I am dealing here not with modern materialists of one idea—and that idea an atom—but with the great master of materialism, whose brain was large enough to take in Mankind as well as Nature. Lucretius contemplated the nature of things as related to the conditions of man, and sought to relieve mankind of troubled feelings and fancies by teaching that they and all things are but a congeries of atoms. Hence it is a legitimate criticism upon his system that it fails completely of the end to which he sought to apply it. The materialist teaches that man himself is but a material product of means and agencies purely

physical, and that at death he shall be resolved into primitive atoms. He is not at liberty, therefore, to set aside the feelings of man as having no relation to a physical system, and of no account as matter of knowledge. He is bound to account for the existence of such feelings, and to find some correlation of the universe to man as he is, and knows himself to be. It is a consistent, logical, and also a scientific objection to the materialistic scheme of the universe that it fails utterly to account for or respond to that which is noblest and best in man—his esthetic and ethical nature, his spiritual longings and hopes. Far be it from me to imply that materialists themselves are wanting in these finer sentiments of our nature. Men are often better than their systems, and a man's feeling may show him better than his opinion or belief. Even while one is employing his intellect to prove that he is of the earth earthy, his moral nature may proclaim his divine origin and his immortal destiny<sup>1)</sup> My argument has to do not with men but with systems; and I put it to you personally, whether you would consent to stifle your emotions of gratitude for any scientific dogma of materialism, or whether that can be to you a scientific and sufficient explication of the universe, which, by reducing it to mere matter and motion, leaves no place nor object for the exercise of a

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<sup>1)</sup> Professor Ernst Haeckel, of Jena, in the first chapter of his "History of Creation," makes a proper distinction between *scientific* materialism and *moral* or *ethical* materialism, and justly protests against the imputation of the belief and practice of the latter to those who advocate the former—which he prefers to call *Monism*. Professor Tyndall and Mr. Proctor likewise take pains to defend themselves against the charge of moral delinquency in their scientific teachings. It is a shame to the advocates of religion that there should be any occasion for such a protest on the part of men of science. All personal imputation should be ruled out of a discussion which is of equal import to science and religion. At the same time, it would relieve the books and lectures of Tyndall and Proctor of a tiresome element, if these gentlemen could be made to understand that their personal faith or feeling upon subjects of which no one should suspect them of knowledge," is of very little consequence to the general public.

part of your nature so tender, so noble, so true and so good? Something in my heart responds to the opening sentence of the Proclamation under which we meet to-day, that this custom of public thanksgiving to Almighty God is "as wise, as it is beautiful." What my esthetic nature calls for, that a universe fit for me to live in must respond to, through a Spirit of intelligence, beauty, and love.

II. The second test to which I would subject the systems of Lucretius and Paul is the sentiment of Patriotism. This also grows directly out of the occasion that has brought us together. This is the American Thanksgiving day; and our gratitude grows more tender and sacred as we think to-day of that nation of which we are thankful, and in foreign lands—oh so thankful to be members!

For nothing am I more proud of my country, than that she knows what she has to be thankful for; and from President to peasant dares to be thankful before a materialistic and gainsaying age. In America, we respect the tenacity with which the German, though naturalized, clings to memories of his Fatherland; and the devotion with which the Frenchman, refusing to be naturalized, dreams of making his Paradise in *la belle France*. Even John Chinaman commands a tear of sympathy that he thinks the soil from which he digs his gold not good enough to lay his bones in, but provides that these shall be carried back to the Celestial kingdom.

"Breathes there the man with soul so dead  
Who never to himself hath said,  
This is my own, my native land!"

But why a soul that itself consists of nothing but atoms, even though "these are exceedingly round and exceedingly minute,"<sup>1)</sup> should have such a transcendent passion for

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<sup>1)</sup> Lucretius L. III., 179.

coarser bodily atoms round about it, the atoms that compose my understanding are not "nimble"<sup>1)</sup> enough to discern. Why do we foster with such reverent care the art, the literature, the monuments of a nation, identify ourselves with its past, and transmit this with ourselves to posterity? Whence the sentiment of national honor, pride, humiliation, hope—all that goes to make the moral personality of a nation, if we are but atoms brought together by no intelligence, if at death these atoms of our minds, like those of our bodies, are to be used to manure the growth of plants and feed the life of animals? What place is there, then, for the patriotic and historic sentiment in a nation? It was with full knowledge of nature and science, that Du Bois Raymond declared it absolutely and forever inconceivable that a number of carbon, hydrogen, nitrogen, and oxygen atoms should be otherwise than indifferent as to their own position and motion, past, present, or future. It is utterly inconceivable how consciousness should result from their joint action.<sup>2)</sup> And it is still more inconceivable how from any number of atomic structures, originated by matter, consisting only of matter, exercising purely material functions, and then returning to matter, there should arise that continuity of existence which is the national life, that historic consciousness which is the national soul.<sup>3)</sup> If we are not the product of intelligence, is there aught of intelligence in what which we produce? is there any more of spirit in the printed word than in the type that print it? any more of skill in the art of painter and sculptor than in the fortuitous formations of nature? Who or what shall determine this, if mind and soul are bodily? And what is there

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<sup>1)</sup> Lucretius L. III., 186. See also Shakspeare, "nimble spirits" (*Love's Labor Lost*, IV., 3).

<sup>2)</sup> Address at Leipzig, 1872.

<sup>3)</sup> See also *Das Leben der Seele*, von Prof. Dr. M. Lazarus.

worth preserving or transmitting where body, soul, and spirit, nations, lands, and seas are all alike parts in the endless flux and reflux of atoms?

But on the spiritual system of the universe I can understand how minds can work together for the future, how patriot spirits can labor for posterity, how the thinkers of one generation can cherish the thoughts of the past, and add to their heritage for after ages, and do this with the feeling that there is a plan and purpose over nations; yes, with Paul's doctrine of men and things, I can even rise to his unrivalled utterance of self-sacrificing patriotism, "I could wish that myself were accursed from Christ for my brethren, my kinsmen according to the flesh: Who are Israelites, to whom pertaineth the adoption, and the glory, and the covenants, and the giving of the law, and the service of God, and the promises: Whose are the fathers, and of whom, as concerning the flesh, Christ came, who is over all, God blessed forever."<sup>1</sup>) Yet patriotism is not the highest of the moral virtues; and a domineering antagonism, or a blind *Chauvinisme* too often abuse its name.

III. But in harmony with true patriotism, and, indeed, emerging out of it, is the spirit of Philanthropy—regard for Mankind as having a community of rights and interests, and also in hopes and destiny. Nowhere in modern literature is this spirit more beautifully presented than by Goethe, in answer to the charge of lack of patriotism during the national movement of 1813-'14. In a conversation with Soret in 1830, Goethe said, "National hatred is quite a peculiar thing. You will always find that it is strongest and fiercest in the lowest stages of culture. But there is also a stage where it entirely disappears, where one stands to some extent *above* the nations, and sympathizes with the

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<sup>1</sup>) Rom. IX., 1-5.

weal or woe of a neighbor people as with that of one's own. This latter stage of culture suited my nature, and I had confirmed myself in it long before reaching my sixtieth year."

To this test of Philanthropy I would now submit the systems of Lucretius and Paul. Their relations to this higher culture I can sum up in very few words. Lucretius laughed at the superstitions and miseries of mankind: Paul pitied them. Lucretius wrapped himself aloof from the world in pride, Paul took the whole world to his heart in prayer. The contrast was not merely personal, it lay in the systems, and is radical and irreconcilable. Just what the philosophy of Lucretius on "the nature of things" caused him to think of his fellows, just how it made him feel toward them, himself has told us in the opening of his second book.

"It is sweet, when on the great sea the winds trouble its waters, to behold from land another's deep distress; not that it is a pleasure and delight that any should be afflicted, but because it is sweet to see from what evils you are yourself exempt. It is sweet, also, to look upon the mighty struggles of war arrayed along the plains without sharing yourself in the danger. But nothing is more welcome than to hold the lofty and serene positions well fortified by the learning of the wise, from which you may look down upon others, and see them wandering all abroad and going astray in their search for the path of life, see the contest among them of intellect, the rivalry of birth, the striving night and day with surpassing effort to struggle up to the summit of power and be masters of the world. O miserable minds of men! O blinded breasts! in what darkness of life, and in how great dangers is passed this term of life whatever its duration! not choose to see that nature craves for herself no more than this, that pain hold

aloof from the body, and she in mind enjoy a feeling of pleasure exempt from care and fear.”<sup>1)</sup>

To recover ourselves from the shudder that this cold scorn of humanity gives us, we must turn to Paul, a man by nature as proud and fiery as Lucretius, and nursed beyond exception in pride of race and religion, fed by the flattery of teachers and rulers. Yet this “Hebrew of the Hebrews,” this “Pharisee of the Pharisees,” this free-born Roman, this petted pupil of Gamaliel, this haughty commissioner of the Sanhedrim, this thinker and orator, who, in the consciousness of his powers and his cause, could refute judges, dispute with philosophers, admonish kings, wrote to a little band of converted pagans living in contempt at the capital, “I long to see you, that I may impart unto you some spiritual gift; I am debtor both to the Greeks and to the barbarians, both to the wise and to the unwise.”<sup>2)</sup> Ah! my friends, nothing makes man so great and noble as the thought that he is a child of God, and that all men share this parentage. It is the nature of an atom to agglomerate; it is the nature of God to give. Some men have a talent for the infinitely little, and it is well for the world there are such minute investigators, and well for themselves, when one knows how to connect the little with the great. But it is bad for the vision to be always looking through the microscope. There are men who spend their lives in rolling atoms together as the beetle rolls its ball, till they fancy that this ball they have rolled up is the universe, and look down with swelling pride upon the ants that it crushes as it rolls. Development through the struggle for existence by the law of the strongest, tends to exclusiveness and selfish pride; but the possession of gifts bestowed from some higher source of life and power in-

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<sup>1)</sup> L. II., 1-20.

<sup>2)</sup> Rom., I., 14

clines to a generous impartation to others; "freely ye have received, freely also give."<sup>1)</sup> By so much as Paul had received of the wisdom and knowledge of God, by so much did he feel himself a debtor alike to the Greek who despised his race, and the barbarian whom his race despised. How patient he was of human errors and infirmities, how sympathetic with human sorrows, "showing all meekness unto all men," that he might win them to the truth; renouncing the honors and ambitions of his youth, working with his own hands, accepting bonds and stripes and imprisonment, that he might deliver men from the superstitions and errors that Lucretius made a mock of, and willing to brave shipwreck, that he might rescue the struggling mariners that Lucretius laughed at from his complacent footing on the shore. "We were gentle among you," Paul writes to the Thessalonians, "even as a nurse cherisheth her children; so being affectionately desirous of you, we were willing to have imparted unto you, not the Gospel of God only, but also our own souls, because ye were dear unto us."<sup>2)</sup> It has been finely said that Christianity first awakened "an enthusiasm for humanity;" and under the Roman empire, in days of slavery and caste on the one hand, and conquest and colonization on the other, Paul gave the precepts, "Honor all men;" "Owe no man any thing, but to love one another."<sup>3)</sup> The key to this all-embracing philanthropy was given in his speech at Athens; first the feeling of Patriotism in the fact that God has assigned to each nation the bounds of its habitation, and furnished it with gifts and opportunities of its own; and next the feeling of Philanthropy in the fact that all these nations thus divinely parcelled out are of one origin, children of one Father, their hearts beating with one blood. The highest motive

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<sup>1)</sup> Mat. X, 8.

<sup>2)</sup> Thess. II., 7, 8.

<sup>3)</sup> Rom. XIII., 8.

for the love of Man is given in the thought that this universe is our Father's house, and we are His offspring.

IV. To advance a step higher, let us test these two systems of the Universe, in their adaptation to collective Humanity, for its recovery or relief from the sorest evils with which it has always been oppressed. Though Lucretius mocked at human failures and miseries, in another mood he sought to mitigate them. The latter part of his third book, from v. 870, is devoted to this end. It is almost impossible to condense his argument, or give it fairly in modern forms of speech; but if you will read it attentively, I think you will agree with me that he here falls quite below himself in the beggarly motives that he presents for a noble and happy life. The sum and substance of it all is, that the troubles and sorrows of men either grow out of their superstitions or are aggravated by these; that the remedy is to learn the nature of things, and adjust ourselves to the fact that things always were, and always shall be, as they are—that living and dying went on for ages before our birth, and shall go on unendingly after our death, when we shall sink into the sleep that knows no waking. He can furnish us nothing higher nor stronger than this, wherewith to cope with “the ills that flesh is heir to.” This poverty of motive lies in his system. Materialism has invented names and terms enough to fill a lexicon of its own, but among these all you find no such words as recovery, restoration, redemption, applied to the world and its needs. But how can any system cover Humanity, or even touch upon it, that fails of this? I press this point the more earnestly, as fatal to the Materialistic scheme of the Universe. Tyndall tries to meet, or rather to evade it, by constantly asserting that all such questions belong to the feelings, and are therefore outside the domain of knowledge and of science; that the difficulties they

raise against the conclusions of "pure intellect" are due to the fact that "reason is traversed by the emotions." If this were so, by what right does he assign to "pure intellect" this exclusive pre-eminence over the emotions as a part of the constitution of Man to be satisfied in the constitution of Nature? He admits that Materialism can not pretend "to be a complete philosophy of the human mind," and that "what is really wanted is the lifting power of an ideal element in human life." But shall this "ideal" power be a chimera of the feelings, a phantasy of the imagination, with no base of fact or knowledge? In what respect, then, would it be better than a superstition, which does not "lift up" but degrade? Haeckel tells us that "scientific materialism positively rejects every belief in the miraculous, and every conception, in whatever form it appears, of supernatural processes. Nowhere in the whole domain of human knowledge does it recognize real metaphysics, but throughout only physics."<sup>1</sup>) And Tyndall says of the Power manifested in the Universe, "I dare not, save poetically, use the pronoun He regarding it; I dare not call it a Mind; I refuse to call it even a Cause."<sup>2</sup>) Thus Materialists claim a monopoly of the visible universe, and deny to men the conception of any other. But here is Man in the universe, and of it, with most potent agencies of being, with most insatiable desires and needs, to which a materialistic universe utterly fails to respond. That can not be a scientific account of the universe that is dumb to what is most vital and urgent in the chief known factor of the system—Man.

Science has not solved that problem of moral evil that pervades the whole structure of society, and seems to be woven into the very texture of human life. Helpful as

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<sup>1</sup>) *History of Creation*, Chap. 1.

<sup>2</sup>) *Fortnightly Review*, Nov. 1, 1875.

Science has been, and promises yet to be, in the mitigation of outward forms of evil, and the possible avoidance of some evils in the future, it has not so much as furnished the elements for resolving that evil which the history, the legislation, and the conscience of mankind unite in stamping as moral, and therefore personal and responsible. Science multiplies its inventions, and the Genius of destruction seizes upon these to make war more sweeping, certain and terrible in its woes. Science pursues its analysis of nature to the molecules in which she had hidden her subtlest powers, and crime takes advantage of these to invent new means of fraud and murder, and to elude detection. Year by year, scientific associations, congresses for education, social science, law reform, meet for the advancement of mankind in knowledge and happiness—I rejoice in such gatherings, and meet with them;—year by year they bring forth something for the advantage of society in health, in morals, and in peace; but their processes are all too slow and too superficial for the healing of the world, that still sins and suffers and suffers and sins through the groaning ages. Development has not yet eradicated this root of evil; natural selection has not yet secured the survival of the fittest in that moral sphere upon which human welfare depends; social science has not lifted human nature to the point where it no more tends to go astray. Side by side with Bristol Associations and Brighton Congresses are Whitechapel murders and drunken brutes beating their wives; so that every upward step in civilization seems contrasted by a lower deep of barbarism. The world cries out for redemption; its soul complains, “I know there are evils without me, which the eternal strife of atoms has not worn away, and the grinding of the everlasting laws has not reduced to powder, but I find a deeper evil within, for which nature yields no remedy and no recompense.”

The heart in moments of agony cries out for relief; but atoms piled mountain high only echo back its wail, and the laws that bind the universe together are walls of adamant to such a cry. In some hour of darkness, of fear, of despair, I lift up my voice, 'Hear, o heavens, give ear, o earth!' but the heavens are brass over my head, the earth is iron under my feet; but I now lift my voice to the Father in Heaven, and the iron dissolves: I am on the footstool of prayer; the gates of brass burst asunder, and heaven and earth commingle in the light and air of love. All laws now bend before the supreme majesty of that law of love, which is God. I find myself in the higher universe of moral laws, and here, for fall is recovery, for sin is redemption, for death is life. And this system of the universe I feel to be true; my needs confess it, my heart accepts it, my soul rejoices in it, and emancipated from the Nature of things, I rise to the Author of things, and join the triumphant doxology of Paul, "of Him and to Him and through Him are all things, to whom be glory for ever."

V. We come now to the final test of these systems in their application to that feeling of Hope which is native and imperishable in man, and to that cheerful and beneficent working that should realize the hopes of Humanity. It may fitly characterize the system of Lucretius to say, there is no hope in it; and it was a fitting commentary on such a system that he who framed it, seeing nothing to live for and nothing to hope for, should end his life by his own hand. Not that I would charge the suicide of Lucretius as a crime upon his system or himself. So far from being put under the ban of priestly superstition, or the more mercenary ban of Life Insurance companies, the suicide should be looked upon with a tender, even sacred pity, as the victim of mental or moral disease. Yet when Lucretius was so tempted, we find in his system nothing of the hope that

could have restrained the hand which had written "after death there will remain no self"—that is no conscious personality—and "no one wakes up upon whom the chill cessation of life has once come."<sup>1</sup>) Thus we see this proud master of the material universe succumbing to the fate that befalls his atoms.

In that same capital where in the height of his fame Lucretius threw away his life, we see the aged Paul a prisoner in chains;—of earthly toils, trials, conflicts, griefs, the labor and the weariness of life, he has had as much as any man could experience or bear; he knows that the end is near; in the feeble light of his dungeon, his hands chained to the guard, without, the sentry and the axe of the executioner, he writes these last words to his beloved Timothy; "I am now ready to be offered, and the time of my departure is at hand; I have fought a good fight, I have finished my course, I have kept the faith; henceforth there is laid up for me a crown of righteousness, which the Lord the righteous Judge shall give me at that day, and (O great, loving, magnanimous heart of Paul!) not to me only, but unto all them also that love his appearing. The Lord shall deliver me from every evil work, and will preserve me unto his heavenly kingdom; to whom be glory forever and ever."<sup>2</sup>) Who would not trample worlds of atoms under his feet to live in a universe of such hopes, such issues, such glorious rewards? Let the man that is within you answer which is the fitting universe for you. To all that Lucretius has said of "the nature of things," oppose the nature of Man. That most self-sacrificing of patriots, gentlest of spirits, purest of men, Joseph Mazzini once said to me, "These materialistic questions belong to

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<sup>1</sup>)

"Nec quisquam expersgitus exstat,

Frigida quem semel est vitæ pausa secuta." (L. III., 927.)

<sup>2</sup>) 2. Tim., IV., 6-9.

the *kitchen* of humanity; it is the soul of humanity that I care for." All that is true in Darwin, Paul not only knew theoretically, but felt within himself. He knew how much of the animal he had inherited from his progenitors—that low materialistic untamed "law in his members" working ever toward sin and death—but he opposed to this "the law of the spirit of life;" and in the struggle to be a man secured the survival of the fittest, in the triumph of spirit over matter. And from this personal experience, this inward *knowledge* of spiritual power, he held up the torch of hope for humanity; "We are saved by hope. The whole creation groaneth and travaileth in pain together waiting for the manifestation of the sons of God," when even the material creation "shall be delivered from the bondage of corruption into the glorious liberty of the children of God."<sup>1</sup>) How grand the vista here opened of the future of Humanity, and not of man alone, but of all nature, organic and inorganic, through the restitution and perfection of Humanity. These notes of hope and triumph go sounding and echoing through the ages, like the Fifth Symphony of Beethoven, that can not loose its hold upon the theme, but recovers it again and again, and rising from gentlest cadences gathers in volume and majesty, till it might rouse atoms to life and wake the dead;—so comprehensive, so inexhaustible is the thought of Paul concerning man and the order of things with which he is related.<sup>2</sup>) But the scheme of Lucretius admits of no expansion. It is shut down within its own horizon—rather it is shut up within a cavern of endless gloom, where those who enter

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<sup>1</sup>) Rom. VIII., 19-25.

<sup>2</sup>) Tyndall seems puzzled at "the wonderful plasticity of the Theistic Idea, which enables it to maintain, through many changes, its hold upon superior minds." Has he never, then, read that "in Him was *life*, and the life was the *light* of men?"

must bid farewell to Hope. The scheme of Paul has made peoples wiser and better in the degree that they have accepted it; it wants but to be accepted in its completeness, to fill the world with light and peace and joy. It carries in itself the future of all poetry and prophecy, and they who teach it are messengers of gladness and joy. But how can the followers of Lucretius exult in such a system? Does the physician put on airs of mirth and exultation when he tells his patient there is no hope? Yet this message of despair is what the priests of Materialism bring from the arcana of nature. One would think they would go forth in sackcloth and ashes, with inverted torches, to the grave of all things. Against a nature of such origin and end, I pit my own manhood, and do not fear the issue. Would I cherish the tender, graceful sentiment of gratitude? then must I follow Paul, and not Lucretius. Would I yield to the noble impulses of patriotism? then must I follow Paul, and not Lucretius. Would I rise to the magnanimous heights of philanthropy? then must I follow Paul, and not Lucretius. Would I help Mankind in their sorrows, deliver them from their superstitions, raise them from their sins? then must I follow Paul, and not Lucretius. Would I lift myself and my race to immortal hopes? then must I drop Lucretius, and follow Paul to the life everlasting.

That life is mine, by every title of nature and of spirit. If I am the product of Nature's upward striving, I have a right to demand that Nature shall stand by her work, and not burlesque her own laws. If her law be "the survival of the fittest," then I, as the fittest, must and will survive. Nature herself can not reduce me to oblivion, and give immortality to atoms. With this conscious spiritual life I defy her power. Whatever its origin, whether struck out as a spark from flinty atoms, or stolen from Heaven, it is

mine; and not rock, chains, nor vulture, not billows, tempest, nor thunder-bolt of Jove, not all the powers of Nature, Death, and Hell shall compel me to part with it. Nature may have the atoms that encompass me, but can not have ME.<sup>1)</sup> And if in this visible material universe there is no place where this quickening, yearning, mounting, joying spirit of mine can find its sphere, there is that within me that will find or force its way out of such a universe to one where the fittest do survive. But the way to that sphere of spiritual and immortal powers is already open; though tracked with tears and blood, made sure and bright for us by the Man our Brother, who, passing through the gates of death, has gone before—Him “who was dead, but is alive forever more, and has the keys of hell and death.”<sup>2)</sup> “Thanks be unto God, who giveth us the victory, through our Lord Jesus Christ.”<sup>3)</sup>

<sup>1)</sup> “You can not satisfy the human understanding in its demand for logical continuity between molecular processes and the phenomena of consciousness. This is a rock on which Materialism must inevitably split whenever it pretends to be a complete philosophy of the human mind.”—Tyndall, *Fortnightly Review*, Nov., 1875.

<sup>2)</sup> Rev. I., 18.

<sup>3)</sup> 1 Cor. XV., 57.

<sup>\*</sup>) Note to page 23.—It is the fashion with Materialists to ridicule this mode of argument as having no basis of “knowledge.” They mislead themselves by assuming (1) that knowledge can only be objective. But when I know a thing as an object, in the same instant I know the *fact* that I know this thing. The knowing the thing requires simultaneously these two other knowledges—the knowledge of Me and of My knowing. If any one denies this, I can only apply to him the words of Lucretius (L. IV., 468): “If a man believe that nothing is known, he knows not whether this even can be known, since he admits he knows nothing. I will therefore decline to argue the case with him who places himself with head where his feet should be.”

Materialists mislead themselves, also, by assuming that a conviction based upon sensible phenomena is necessarily and always more certain as a ground of action than a fact of consciousness or a conclusion or belief that rests upon moral evidence or metaphysical reasoning. Mankind act upon these latter in ten cases to one of objective knowledge. Professor Tyndall insists upon limiting knowledge and certainty to facts perceived by the senses (*Fortnightly Review*, Nov., 1875); and says, “The Power which I see manifested in the Universe I dare not, save poetically, use the pronoun He regarding it; I dare not call it a Mind; I refuse to call it even a Cause.” Now, I have never seen Mr. Tyndall, but should

he appear before my eyes at this moment, could I be made a whit more certain of his existence than I already am through his writings? Moreover, with no disrespect to Mr. Tyndall or his atomic theory, the power which I see manifested in these writings, I dare call a *Mind*; and, by precisely the same method, the power that I see manifested in Tyndall himself, I even dare call an intelligent Cause.

Since Professor Tyndall cries out for "knowledge," I beg to direct his attention to some knowable things of which one marvels to find him so oblivious. In his Belfast Address he tells us that "the merchant had rendered the philosopher possible. . . In those regions where the commercial aristocracy of ancient Greece mingled with its eastern neighbors, the sciences were born" Can it be possible that Professor Tyndall does not know what had been accomplished on the Nile, in mathematics, mechanics, astronomy, applied chemistry, ages before Greece was born, and how the Greek philosophers owed their indebtedness to Egypt? Again in the *Fortnightly Review*, Nov., 1875, he speaks of the Mosaic Cosmogony as finally abandoned. False interpretations of that Cosmogony, due to ignorance of Hebrew and to the realistic philosophy, have indeed been abandoned. But can it be possible Professor Tyndall does not know that ages before Geology was dreamed of, Augustine as a Hebrew scholar had said, "These are the ineffable days (*dies ineffabiles*) of the infinite Jehovah." He also terms them *naturæ*, *natures*, and *mora*, pauses or delays (*De Genesi ad Literam*, L. II., C. 14). Surely Mr. Tyndall should know things within the reach of every scholar, and not trust to the guidance of such an authority as Professor Draper. In teaching others, he should first find out what they already know; otherwise the originality of his "Fog Signals" may be disputed.